

Application No. 10/743,173  
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## **REMARKS**

Claims 1-66 are pending. Claims 1, 17, 28, 31-32, 47, 50-51 and 66 have been amended. Claims 2-16, 18-27, 29-30, 33-46, 48-49 and 52-65 are original. The later numbered claim 49, which was accidentally duplicated, remains canceled. No new matter has been introduced by the amendment.

### **1. Drawings**

The drawings have been objected to under 37 C.F.R. 1.83(a). Figures 4-12 have been added to show every feature of the invention specified in the claims. Figures 4-12 are identical to corresponding figures in Korean Patent Application No. P2002-87763, which is incorporated by reference in the present application, and thus no new matter has been introduced. Accordingly, the Applicants respectfully submit that the objections to the drawings have been overcome and should be withdrawn.

### **2. Claim Rejections under 35 U.S.C. § 112, Second Paragraph**

Claims 1-16 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 has been amended to recite "switching-parts". Accordingly, the Applicants respectfully submit that the rejection against amended independent claim 1 and thus the rejections against claims 2-16, which depend from amended independent claim 1, have been overcome and should be withdrawn.

Regarding claims 11-12, both 10.85  $\mu$ s and 21.7  $\mu$ s are feasible and intended time intervals for the selection block. Regarding claims 13-14, both 3 gate drive ICs

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and 6 gate drive ICs are feasible and intended structures for the liquid crystal display device. Support for claims 11-14 can be found in Applicants' specification, for example, in paragraph 36, lines 1-5. Accordingly, the Applicants respectfully submit that the rejections against claims 11-14 are improper and should be withdrawn.

**3. Claim Rejections under 35 U.S.C. § 102(e) And 35 U.S.C. § 103(a), And Allowable Subject Matters**

**A. Claims 1-16**

Claims 1 and 8 have been rejected under 35 U.S.C. § 102(e) over Lee (U.S. Pat. No. 6,825,822). Claims 1, 2 and 8 have been rejected under 35 U.S.C. § 102(e) over Hebiguchi et al. (U.S. Pat. No. 6,583,777). Claim 3 has been rejected under 35 U.S.C. § 103(a) over Hebiguchi. Claims 9-16 have been rejected under 35 U.S.C. § 103(a) over Hebiguchi and further in view of Hashimoto et al. (U.S. Pat. No. 6,072,457). The Applicants respectfully traverse these rejections based on the following remarks.

Lee describes a display apparatus including left and right pixels LP(m,n) and RP(m,n). The Examiner, however, conceded that the left pixel LP is turned on by selectively turning on TFTs M11 and M12 by enabling both gate lines Sm and Sm+1 (Office Action, page 4). That is, the left side pixel is selectively driven both by the switching-part (M11) of a first gate line (Sm) and by the switching-part (M12) of a second gate line (Sm+1). In other words, the left and right side pixels are not selectively driven, respectively, by switching-parts of the first and second gate lines.

In contrast, the liquid crystal display device recited in amended independent claim 1 comprises left and right side pixel electrodes, selectively driven by switching-

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parts of the first and second gate lines, respectively. Support for amended independent claim 1 can be found in Applicants' specification, for example, in paragraph 82, lines 7-9; and in paragraph 83, lines 3-9.

Hebiguchi describes an active matrix type liquid crystal display device in which left and right side pixel electrodes are respectively formed in the left and right side pixel regions. But the left and right side pixel electrodes do not overlap greater than one gate line (Fig. 1).

In contrast, the liquid crystal display device recited in amended independent claim 1 comprises left and right side pixel electrodes, respectively formed in the left and right side pixel regions, wherein each of the left and right side pixel electrodes overlaps greater than one gate line.

In view of the above amendments and remarks, the Applicants respectfully submit that neither Lee nor Hebiguchi teaches or suggests all the limitations as recited in amended independent claim 1. Accordingly, the rejections against amended independent claim 1 and thus the rejections against claims 2-16, which depend from amended independent claim 1, have been overcome and should be withdrawn.

## **B. Claims 17-27**

Claims 17-18 and 22-27 have been rejected under 35 U.S.C. § 103(a) over Hebiguchi and further in view of Hashimoto. Claims 19-21 have been objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Applicants respectfully traverse these rejections and objections based on the following remarks.

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As discussed in section 3A, Hebiguchi does not teach or suggest an active matrix type liquid crystal display device in which left and right side pixel electrodes, respectively formed in the left and right side pixel regions, overlap greater than one gate line. Hashimoto does not cure the deficiency of Hebiguchi since Hashimoto does not teach or suggest an active matrix type liquid crystal display device with left and right side pixel electrodes.

In contrast, the liquid crystal display device recited in amended independent claim 17 comprises left and right side pixel electrodes, respectively formed in the left and right side pixel regions, wherein each of the left and right side pixel electrodes overlaps greater than one gate line.

In view of the above amendments and remarks, the Applicants respectfully submit that Hebiguchi in view of Hashimoto does not teach or suggest all the limitations as recited in amended independent claim 17, and thus a *prima facie* case of obviousness has not been established (see MPEP 2143). Accordingly, the rejections against amended independent claim 17, and thus the rejections against or objections to claims 18-27, which depend from amended independent claim 17, have been overcome and should be withdrawn.

#### **C. Independent claims 28, 47, 66 and their dependent claims**

Claims 28-30, 33-34, 44, 46-49, 52-53, 63 and 65-66 have been rejected under 35 U.S.C. § 103(a) over Hebiguchi. Claims 31-32, 35-43, 45, 50-51, 54-62 and 64 have been objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Applicants respectfully traverse these rejections and objections based on the following remarks.

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Independent claims 28 and 47/66 have been amended to include the limitations from allowable claims 31-32 and 50-51, respectively. Accordingly, the Applicants respectfully submit that the rejections against amended independent claims 28, 47 and 66, and thus the rejections against or objections to claims 29-46 and 48-65, which depend from amended independent claims 28 and 47, respectively, have been overcome and should be withdrawn.

#### **4. Conclusion**

Based on the above remarks, the Applicant respectfully submits that the claims are in condition for allowance. The examiner is kindly invited to contact the undersigned attorney to expedite allowance.

Respectfully submitted,



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